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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,458	03/01/2002	Hongyun Chen	100103.403	3348
500	7590	01/29/2004	EXAMINER	
SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVE SUITE 6300 SEATTLE, WA 98104-7092			QIAN, CELINE X	
			ART UNIT	PAPER NUMBER
			1636	

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,458

Applicant(s)

CHEN ET AL.

Examiner

Celine X Qian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-28 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claims 1-28 are pending in the application.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11 and 26, drawn to an isolated nucleic acid molecule encoding an ABCA5 transporter, a vector comprising said nucleic acid and a host cell comprising said vector, classified in class 536, subclass 23.1, class 435, subclass 320.1 and 325.
- II. Claims 12 and 13, drawn to an isolated polypeptide comprising SEQ ID 2 or 5, classified in class 530, subclass 350.
- III. Claim 14, drawn to an antibody directed to the polypeptide, class 530, subclass 387.1.
- IV. Claims 15-17, drawn to a method for detecting the presence of polypeptide in a sample by using a compound that binds to the polypeptide, class 424, subclass 130.1.
- V. Claims 18-20, drawn to a method for detecting the presence of a nucleic acid molecule in a biological sample by using a probe or primer, class 536, subclass 24.33.
- VI. Claims 21 and 22, drawn to a method for identifying a compound which binds to the polypeptide, class 424, subclass 178.1.
- VII. Claim 23, drawn to a method for modulating the polypeptide activity, class 424, subclass 198.1.

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- VIII. Claim 24, drawn to a method for identifying a compound which modulates the activity of the polypeptide, class 424, subclass 94.1.
- IX. Claim 25, drawn to a method for detecting allelic variation of the nucleic acid, classified in class 536, subclass 24.31.
- X. Claim 27, drawn to a composition comprising a pharmaceutically effective amount of an antisense oligonucleotide and a pharmaceutical carrier, class 536, subclass 24.5.
- XI. Claim 28, drawn to a transgenic knockout mouse comprising a disruption of the ABCA5 gene, class 800, subclass 18.

The inventions are distinct, each from the other for following reasons.

The inventions of Groups I-III, X and XI are patentably distinct from each other because they are drawn to materially distinct compositions that are not related. Each invention is chemically, biologically and functionally distinct from each other. Therefore, the inventions of Groups I-III, X and XI are patentably distinct.

The inventions of Groups IV-IX are patentably distinct from each other because they are drawn to methods that require different starting material and modes of action. Each method has a distinct purpose and requires different materials and modes of action to reach that purpose. Therefore, the inventions of Groups VI-IX are patentably distinct.

The inventions of Groups I-III, X, XI are patentably distinct from the inventions of Groups IV-IX because they are drawn to compositions and methods that are not directly related. The compositions of Groups I-III, X, XI can be used in methods other than that of Groups IV-IX, for example, the nucleic acid of Group I can be used to produce protein in cell culture. Or the

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methods of Groups IV-IX do not require the compositions of Groups I-III, X and XI, for example, the methods of Groups IV-IX do not require the transgenic animal of Group XI. Therefore, the inventions of Groups I-III, X, XI are patentably distinct from the inventions of Groups IV-IX.

Groups I-X are comprised of multiple inventions which are the products or methods drawn to different and distinct sequences which do not render obvious each other and thus are patentably distinct. If any of Groups I-X are elected, applicants must elect a single invention which is the product or method drawn to one specific sequence to which the claims will be restricted. Note, this restriction to examination of a single sequence is due to the now very high and undue burden for examining more than one sequence which is caused by the continued exponential increase of size of the sequence databases to be searched for each sequence, resulting in a corresponding increase in computer search time and examiner time for reviewing the computer search results. Therefore, the limited resources of the Office no longer permit examination of more than one sequence in an application.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper. A search of the subject matter of one invention would not be co-extensive with a search of the other invention, and therefore the search would be burdensome. Each invention is capable of supporting a separate patent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Celine X Qian whose telephone number is 703-306-0283. The examiner can normally be reached on 9:00-5:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel Ph.D. can be reached on 703-305-1998. The fax phone number for the organization where this application or proceeding is assigned is 703-305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Celine Qian, Ph.D.

Anne-Marie Falk
ANNE-MARIE FALK, PH.D.
ANNE-MARIE FALK, PH.D.
PRIMARY EXAMINER